What is claimed is:

1. A method of compensating for chromatic dispersion in an optical signal transmitted on a long-haul terrestrial optical communication system including a plurality of spans, said method comprising:

allowing chromatic dispersion to accumulate over at least one of said spans to a first predetermined level; and

compensating for said first pre-determined level of dispersion using a dispersion compensating fiber causing accumulation of dispersion to a second predetermined level.

2. The method of claim 1, wherein said chromatic dispersion is allowed to accumulate over two or more of said spans to said first predetermined level.

3. The method of claim 1, wherein said dispersion compensating fiber is disposed between stages of a multi-stage rare earth doped amplifier

4. The method of claim 1, wherein said rare earth doped amplifier is an erbium doped amplifier.

5. The method of claim 1, wherein said dispersion compensating fiber is disposed in an amplifier following a relatively low loss one of said spans.

6. The method of claim 1, wherein said dispersion compensating fiber is disposed between a Raman portion and an EDFA portion of a Raman/EDFA amplifier.

7. The method of claim 6, further comprising:

configuring a gain of said Raman portion to achieve a desired noise figure level for said Raman/EDFA amplifier.

8. The method of claim 7, wherein said gain of said Raman portion is about 10-15dB.

9. The method of claim 7, further comprising:

configuring a gain of said EDFA portion to achieve a predetermined total gain for said Raman/EDFA amplifier.

10. The method of claim 9, wherein said gain of said EDFA portion is about 5-15 dB.

11. The method of claim 6, wherein said EDFA portion of said Raman/EDFA amplifier is a single-stage EDFA.

12. The method claim 1, wherein said signal is transmitted a distance of greater than 600 kilometers.

13. An optical communication system comprising:

a transmitter configured to transmit an optical signal over an optical information path to a receiver, said optical information path comprising:

at least one Raman/EDFA amplifier having a Raman portion and an EDFA portion and at least one dispersion compensating fiber disposed between said Raman portion and said EDFA portion.

14. The system of claim 13, wherein said EDFA portion is a single-stage EDFA.

15. The system of claim 13, wherein said Raman portion provides gain of about 10-15 dB and said EDFA portion provides gain of about 5-15 dB.

16. The system of claim 13, wherein a length from said transmitter to said receiver is greater than 600 kilometers.

17. A Raman/EDFA optical amplifier comprising:

a Raman gain portion and an EDFA gain portion; and

at least one dispersion compensating fiber disposed between said Raman and EDFA gain portions.

18. The amplifier of claim 17, wherein said EDFA portion of said Raman/EDFA amplifier is a single-stage EDFA.

19. The amplifier of claim 17, wherein said Raman portion is configured to provide gain of about 10-15 dB and said EDFA portion is configured to provide gain of about 5-15 dB.

20. A method of communicating an optical signal on an optical communication system comprising:

transmitting said optical signal over an optical path;

amplifying said optical signal with at least one Raman/EDFA amplifier coupled to said optical path, said amplifier comprising a Raman portion having a Raman gain selected to achieve a desired noise figure level for said Raman/EDFA amplifier and an EDFA portion having an EDFA gain selected to achieve a predetermined total gain for said Raman/EDFA amplifier; and

compensating for dispersion of said optical signal using a dispersion compensating fiber disposed between said Raman portion and said EDFA portion.

21. The method of claim 20, further comprising allowing chromatic dispersion to accumulate over at least one span of said optical path to a first predetermined level before amplifying said signal with said Raman/EDFA amplifier.

22. The method of claim 20, wherein said Raman gain is about 10-15dB.

23. The method of claim 20, wherein said EDFA gain is about 5-15dB.

24. The method of claim 20, wherein said EDFA portion of said Raman/EDFA amplifier is a single-stage EDFA.

25. The method claim 20, wherein said signal is transmitted a distance of greater than 600 kilometers.

26. The method of claim 1, wherein said dispersion compensating fiber is disposed within said Raman portion a Raman/EDFA amplifier.

27. An optical communication system comprising:

a transmitter configured to transmit an optical signal over an optical information path to a receiver, said optical information path comprising:

a plurality of Raman/EDFA amplifiers having a Raman portion and an EDFA portion, wherein at least one Raman/EDFA amplifier of said plurality of Raman/EDFA amplifiers further includes at least one dispersion compensating fiber.

28. The system of claim 27 wherein said dispersion compensating fiber is disposed between said Raman portion and said EDFA portion.

29. The system of claim 27 wherein said dispersion compensating fiber is disposed within said Raman portion.